

OIPE

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/954,987B

DATE: 08/22/2002

TIME: 15:57:20

Input Set : A:\seqlist.txt

Output Set: N:\CRF3\08222002\I954987B.raw

```
4 <110> APPLICANT: Stefan Bauer
         Grayson B. Lipford
 5
 6
         Hermann Wagner
   <120> TITLE OF INVENTION: PROCESS FOR HIGH THROUGHPUT SCREENING OF
         CpG-BASED IMMUNO-AGONIST/ANTAGONIST
 9
12 <130> FILE REFERENCE: C1041/7016 (AWS)
14 <140> CURRENT APPLICATION NUMBER: US 09/954,987B
                                                               ENTERED
15 <141> CURRENT FILING DATE: 2001-09-17
17 <150> PRIOR APPLICATION NUMBER: US 60/233,035
18 <151> PRIOR FILING DATE: 2000-09-15
20' <150> PRIOR APPLICATION NUMBER: US 60/263,657
21 <151> PRIOR FILING DATE: 2001-01-23
23 <150> PRIOR APPLICATION NUMBER: US 60/291,726
24 <151> PRIOR FILING DATE: 2001-05-17
26 <150> PRIOR APPLICATION NUMBER: US 60/300,210
27 <151> PRIOR FILING DATE: 2001-06-22
29 <160> NUMBER OF SEQ ID NOS: 230
31 <170> SOFTWARE: FastSEO for Windows Version 3.0
33 <210> SEQ ID NO: 1
34 <211> LENGTH: 3200
35 <212> TYPE: DNA
36 <213> ORGANISM: Mus musculus
38 <220> FEATURE:
39 <221> NAME/KEY: misc_feature
40 <222> LOCATION: (0)...(0)
41 <223> OTHER INFORMATION: Murine TLR9 cDNA
43 <400> SEQUENCE: 1
    tqtcaqaqqq aqcctcqqqa gaatcctcca tctcccaaca tggttctccg tcgaaqgact
                                                                            60
   ctgcacccct tgtccctcct ggtacaggct gcagtgctgg ctgagactct ggccctgggt
                                                                           120
   accetgeetg cettectace etgtgagetg aageeteatg geetggtgga etgeaattgg
                                                                           180
47
    ctqttcctqa aqtctqtacc ccqtttctct qcqqcaqcat cctqctccaa catcacccqc
                                                                           240
                                                                           300
   ctctccttga tctccaaccg tatccaccac ctgcacaact ccgacttcgt ccacctgtcc
                                                                           360
   aacctgcggc agctgaacct caagtggaac tgtccaccca ctggccttag ccccctgcac
50
   ttctcttgcc acatgaccat tgagcccaga accttcctgg ctatgcgtac actggaggag
                                                                           420
    ctgaacctga gctataatgg tatcaccact gtgccccgac tgcccagctc cctggtgaat
                                                                           480
    ctgagectga gecacaccaa catectggtt ctagatgeta acagectege eggeetatae
                                                                           540
    agcetgegeg ttetetteat ggaegggaae tgetaetaea agaacceetg caeaggageg
                                                                           600
    gtgaaggtga ccccaggcgc cctcctgggc ctgagcaatc tcacccatct gtctctgaag
                                                                           660
                                                                           720
55
    tataacaacc tcacaaaggt gccccgccaa ctgcccccca gcctggagta cctcctggtg
                                                                           780
   tcctataacc tcattgtcaa gctggggcct gaagacctgg ccaatctgac ctcccttcga
57
    gtacttgatg tgggtgggaa ttgccgtcgc tgcgaccatg cccccaatcc ctgtatagaa
                                                                           840
    tgtggccaaa agtccctcca cctgcaccct gagaccttcc atcacctgag ccatctggaa
                                                                           900
```

ggcctggtgc tgaaggacag ctctctccat acactgaact cttcctggtt ccaaggtctg

960

RAW SEQUENCE LISTING DATE: 08/22/2002 PATENT APPLICATION: US/09/954,987B TIME: 15:57:20

Input Set : A:\seqlist.txt

Output Set: N:\CRF3\08222002\I954987B.raw

60	gtcaacctct	cggtgctgga	cctaagcgag	aactttctct	atgaaagcat	caaccacacc	1020
61			ccgcctgcgc				1080
62	aaggtatcct	ttgcccgcct	ccacctggca	agttccttca	agaacctggt	gtcactgcag	1140
63			cttcttccgc				1200
64	gccgatctgc	ccaaactcca	cactctgcat	cttcaaatga	acttcatcaa	ccaggcacag	1260
65	ctcagcatct	ttggtacctt	ccgagccctt	cgctttgtgg	acttgtcaga	caatcgcatc	1320
66	agtgggcctt	caacgctgtc	agaagccacc	cctgaagagg	cagatgatgc	agagcaggag	1380
67	gagctgttgt	ctgcggatcc	tcacccagct	ccactgagca	cccctgcttc	taagaacttc	1440
68	atggacaggt	gtaagaactt	caagttcacc	atggacctgt	ctcggaacaa	cctggtgact	1500
69	atcaagccag	agatgtttgt	caatctctca	cgcctccagt	gtcttagcct	gagccacaac	1560
70			tggctctcag				1620
71	gacctgtccc	ataacaaact	ggacttgtac	cactggaaat	cgttcagtga	gctaccacag	1680
72			ctacaacagc				1740
73	aatttcagtt	ttgtggccca	tctgtccatg	ctacacagcc	ttagcctggc	acacaatgac	1800
74	attcataccc	gtgtgtcctc	acatctcaac	agcaactcag	tgaggtttct	tgacttcagc	1860
75	ggcaacggta	tgggccgcat	gtgggatgag	gggggccttt	atctccattt	cttccaaggc	1920
76	ctgagtggcc	tgctgaagct	ggacctgtct	caaaataacc	tgcatatcct	ccggccccag	1980
77	aaccttgaca	acctccccaa	gagcctgaag	ctgctgagcc	tccgagacaa	ctacctatct	2040
78	ttctttaact	ggaccagtct	gtccttcctg	cccaacctgg	aagtcctaga	cctggcaggc	2100
79			caatggcacc				2160
80	gatgtcagca	gcaacagtat	cgtctctgtg	gtcccagcct	tcttcgctct	ggcggtcgag	2220
81			ccacaacatt				2280
82			agttctagac				2340
83			actgttggag				2400
84			cggccagctg				2460
85			cctctcttgg				2520
86	gccgtgggca	tggtggtgcc	tatactgcac	catctctgcg	gctgggacgt	ctggtactgt	2580
87	tttcatctgt	gcctggcatg	gctacctttg	ctggcccgca	gccgacgcag	cgcccaagct	2640
88			ggtgttcgat				2700
89			gctggaggag	-			2760
90	ctggaggacc	gagattggct	gcctggccag	acgctcttcg	agaacctctg	ggcttccatc	2820
91	tatgggagcc	gcaagactct	atttgtgctg	gcccacacgg	accgcgtcag	tggcctcctg	2880
92	cgcaccagct	tcctgctggc	tcagcagcgc	ctgttggaag	accgcaagga	cgtggtggtg	2940
93			tgcccaccgc				3000
94			ctggccccag				3060
95		-	tagggacaac				3120
96			cagagcaaca	gctggaaaca	gctgcatctt	catgcctggt	3180
97	tcccgagttg						3200
	<210> SEQ II						
	<211> LENGT						
	<212> TYPE:						
		IISM: Mus mu	ısculus				
	<220> FEATU						
		KEY: misc_f					
		CION: (0)					
			N: Murine 1	LR9 ORF			
	<400> SEQUE						
110						tgcagtgctg	60
111	gctgagactc	tggccctggg	, taccetgeet	geetteetae	cctgtgagct	gaagcctcat	120

## RAW SEQUENCE LISTING

DATE: 08/22/2002 PATENT APPLICATION: US/09/954,987B TIME: 15:57:21

Input Set : A:\seqlist.txt

Output Set: N:\CRF3\08222002\1954987B.raw

112	ggcctggtgg	actgcaattg	gctgttcctg	aagtctgtac	cccgtttctc	tgcggcagca	180
113	tcctgctcca	acatcacccg	cctctccttg	atctccaacc	gtatccacca	cctgcacaac	240
114	tccgacttcg	tccacctgtc	caacctgcgg	cagctgaacc	tcaagtggaa	ctgtccaccc	300
115	actggcctta	gccccctgca	cttctcttgc	cacatgacca	ttgagcccag	aaccttcctg	360
116	gctatgcgta	cactggagga	gctgaacctg	agctataatg	gtatcaccac	tgtgccccga	420
117	ctgcccagct	ccctggtgaa	tctgagcctg	agccacacca	acatcctggt	tctagatgct	480
118	aacagcctcg	ccggcctata	cagcctgcgc	gttctcttca	tggacgggaa	ctgctactac	540
119	aagaacccct	gcacaggagc	ggtgaaggtg	accccaggcg	ccctcctggg	cctgagcaat	600
120	ctcacccatc	tgtctctgaa	gtataacaac	ctcacaaagg	tgccccgcca	actgccccc	660
121	agcctggagt	acctcctggt	gtcctataac	ctcattgtca	agctggggcc	tgaagacctg	720
122	gccaatctga	cctcccttcg	agtacttgat	gtgggtggga	attgccgtcg	ctgcgaccat	780
123	gcccccaatc	cctgtataga	atgtggccaa	aagtccctcc	acctgcaccc	tgagaccttc	840
124	catcacctga	gccatctgga	aggcctggtg	ctgaaggaca	gctctctcca	tacactgaac	900
125	tcttcctggt	tccaaggtct	ggtcaacctc	tcggtgctgg	acctaagcga	gaactttctc	960
126	tatgaaagca	tcaaccacac	caatgccttt	cagaacctaa	cccgcctgcg	caagctcaac	1020
127	ctgtccttca	attaccgcaa	gaaggtatcc	tttgcccgcc	tccacctggc	aagttccttc	1080
128	aagaacctgg	tgtcactgca	ggagctgaac	atgaacggca	tcttcttccg	ctcgctcaac	1140
129	aagtacacgc	tcagatggct	ggccgatctg	cccaaactcc	acactctgca	tcttcaaatg	1200
130				tttggtacct			1260
131				tcaacgctgt			1320
132		-		tctgcggatc			1380
·133				tgtaagaact			1440
134				gagatgtttg			1500
135	tgtcttagcc	tgagccacaa	ctccattgca	caggctgtca	atggctctca	gttcctgccg	1560
136	-		_	cataacaaac			1620
137	-			ctggacctga			1680
138				tttgtggccc			1740
139				cgtgtgtcct			1800
140		_		atgggccgca		-	1860
141				ctgctgaagc			1920
142				aacctcccca			1980
143	_			tggaccagtc			2040
144				aaggccctga	-	-	2100
145			_	agcaacagta		-	2160
146		-		gtcaacctca	-		2220
147	_			atgaacctga	_		2280
148				ttcgtagact			2340
149	_			tgtggcagcc			2400
150				ctggatgagg			2460
151				atggtggtgc			2520
152				tgcctggcat			2580
153			-	gatgccttcg			2640
154				ctgcgggtgc			2700
155				cgagattggc	· ·		2760
156				cgcaagactc			2820
157				ttcctgctgg			2880
158				ctgcgtccgg			2940
159				agtgtgctct			3000
160				acagecetga			3060
		, , , , , , , , ,	J - J J -	J J	J J J	, <del>.</del>	

RAW SEQUENCE LISTING DATE: 08/22/2002 PATENT APPLICATION: US/09/954,987B TIME: 15:57:21

Input Set : A:\seqlist.txt

Output Set: N:\CRF3\08222002\I954987B.raw

161	tata	aacc	aga a	actt	ctgc	cg g	ggac	ctac	a gca	agaa							3096
163	<210	> SE	Q ID	NO:	3												
164	<211	> LE	NGTH	: 10	32												
165	<212	> TY	PE:	PRT												•	
166	<213	> OR	GANI	SM: 1	Mus 1	musc	ılus				•						
168	<400	> SE	QUEN	CE:	3												
169	Met	Val	Leu	Arg	Arg	Arg	Thr	Leu	His	Pro	Leu	Ser	Leu	Leu	Val	Gln	
170	1				5					10					15		
171	Ala	Ala	Val	Leu	Ala	Glu	Thr	Leu	Ala	Leu	Gly	Thr	Leu	Pro	Ala	Phe	
172				20					25					30			
173	Leu	Pro	Cys	Glu	Leu	Lys	Pro	His	Gly	Leu	Val	Asp	Cys	Asn	Trp	Leu	
174			35					40					45				
175	Phe	Leu	Lys	Ser	Val	Pro	Arg	Phe	Ser	Ala	Ala	Ala	Ser	Cys	Ser	Asn	
176		50					55					60					
177	Ile	Thr	Arg	Leu	Ser	Leu	Ile	Ser	Asn	Arg	Ile	His	His	Leu	His	Asn	
178	65					70					75					80	
179	Ser	Asp	Phe	Val	His	Leu	Ser	Asn	Leu	Arg	Gln	Leu	Asn	Leu	Lys	Trp	
180					85					90					95		
181	Asn	Cys	Pro	Pro	Thr	Gly	Leu	Ser	Pro	Leu	His	Phe	Ser	Cys	His	Met	
182				100					105					110			
183	Thr	Ile	Glu	Pro	Arg	Thr	Phe	Leu	Ala	Met	Arg	Thr	Leu	Glu	Glu	Leu	
184			115					120					125				
185	Asn	Leu	Ser	Tyr	Asn	Gly	Ile	Thr	Thr	Val	Pro	Arg	Leu	Pro	Ser	Ser	
186		130					135					140					
187	Leu	Val	Asn	Leu	Ser	Leu	Ser	His	Thr	Asn	Ile	Leu	Val	Leu	Asp	Ala	
188	145					150					155					160	
189	Asn	Ser	Leu	Ala	Gly	Leu	Tyr	Ser	Leu	Arg	Val	Leu	Phe	Met	Asp	Gly	
190					165					170					175		
191	Asn	Cys	Tyr	Tyr	Lys	Asn	Pro	Cys	Thr	Gly	Ala	Val	Lys	Val	Thr	Pro	
192				180					185					190			
193	Gly	Ala	Leu	Leu	Gly	Leu	Ser	Asn	Leu	Thr	His	Leu	Ser	Leu	Lys	Tyr	
194			195					200					205				
195	Asn	Asn	Leu	Thr	Lys	Val	Pro	Arg	Gln	Leu	Pro	Pro	Ser	Leu	Glu	Tyr	
196		210					215					220					
197	Leu	Leu	Val	Ser	Tyr	Asn	Leu	Ile	Val	Lys	Leu	Gly	Pro	Glu	Asp	Leu	
198	225					230					235					240	
199	Ala	Asn	Leu	Thr	Ser	Leu	Arg	Val	Leu	Asp	Val	Gly	Gly	Asn	Cys	Arg	
200					245					250					255		
201	Arg	Cys	Asp	His	Ala	Pro	Asn	Pro	Cys	Ile	Glu	Cys	Gly	Gln	Lys	Ser	
202				260					265					270			
203	Leu	His	Leu	His	Pro	Glu	Thr	Phe	His	His	Leu	Ser	His	Leu	Glu	Gly	
204			275					280					285				
205	Leu	Val	Leu	Lys	Asp	Ser	Ser	Leu	His	Thr	Leu	Asn	Ser	Ser	Trp	Phe	
206		290					295					300			_		
207	Gln	Gly	Leu	Val	Asn	Leu	Ser	Val	Leu	Asp	Leu	Ser	Glu	Asn	Phe	Leu	
208	305					310				***	315					320	
209	Tyr	$\operatorname{Glu}$	Ser	Ile	Asn	His	Thr	Asn	Ala	Phe	Gln	Asn	Leu	Thr	Arg	Leu	
210					325					330					335		
211	Arg	Lys	Leu	Asn	Leu	Ser	Phe	Asn	Tyr	Arg	Lys	Lys	Val	Ser	Phe	Ala	

RAW SEQUENCE LISTING DATE: 08/22/2002 PATENT APPLICATION: US/09/954,987B TIME: 15:57:21

Input Set : A:\seqlist.txt

Output Set: N:\CRF3\08222002\1954987B.raw

212
1
1
170
217
218         385
Note   1
220
1
2222       Leu Ser Glu Ala Ala Thr Pro Glu Ala
Leu   Ser   Glu   Ala   Thr   Pro   Glu   Glu   Ala   Ala   Ala   Ala   Ala   Ala   Ala   Glu   Glu   Glu   Glu   Glu   Clu   Clu
224
Leu   Leu   Ser   Ala   Asp   Pro   His   Pro   Ala   Rsp   Rsp   Asp   Asp
226       450       450       4cccccccccccccccccccccccccccccccccccc
227         Lys         Asn         Phe         Met         Asp         Arg         Cys         Lys         Phe         Lys         Phe         Thr         Met         Asp         Leu         480         122         Arg         Arg         Asn         Leu         Val         Thr         Ile         Lys         Pro         Glu         Met         Phe         Val         Asn         Leu         Asn         Asn         Asn         Leu         Asn         Asn         Asn         Ilu
228       465       470       470       475       475       480         229       Ser Arg Asn Asn Leu 485       485       485       490       490       491       495       495         231       Ser Arg Leu Gln Cys Leu 500       Ser Leu 500       505       505       507       11e Ala Gln Ala 61n
229       Ser Arg       Asn       Leu       Val       Thr       Ile       Lys       Pro       Glu       Met       Phe       Val       Asn       Leu       230       490
230       Ser       Arg       Leu       Gln       Cys       Leu       Ser       Leu       Ser       His       Asn       Ser       Ile       Ala       Gln       Ala         232       Val       Asn       Gly       Ser       Gln       Phe       Leu       Pro       Leu       Thr       Asn       Leu       Gln       Val       Leu       Asn       Asn       Leu       Asn       Asn       Leu       Asn       A
231         Ser Arg         Leu         Gln         Cys         Leu         Ser         Leu         Ser         His         Asn         Ser         Ile         Ala         Gln         Ala           233         Val         Asn         Gly         Ser         Gln         Phe         Leu         Pro         Leu         Thr         Asn         Leu         Gln         Leu         Asp           234
232       500       505       510       510       510       520       510       520       525       526       526       526       526       526       526       526       526       526       526       526       526       526       526       526       526       526       526       526       527       526       527       5
233       Val       Asn       Gly       Ser       Gln       Phe       Leu       Pro       Leu       Thr       Asn       Leu       Gln       Val       Leu       Asp         234       Leu       Ser       His       Asn       Lys       Leu       Asp       Leu       Tyr       His       Tyr       Asn       Ser       Phe       Ser       Glu       Phe       Ser       Glu       Phe       Ser       Glu       Phe       Ser       Glu       Phe       Ser       His       Asn       Ser       Glu       Phe       Ser       Tyr       Asn       Ser       Glu       Phe       Phe       Ser       Tyr       Asn       Ser       Glu       Phe       Ser       Phe       Val       Ala       His       Ser       Leu       Ser       Leu       Ala       His       Asn       Asn       Asn       Asn       Asn       Asn       Ser       S
234       515       520       525       526       640       6
Leu   Ser   His   Asn   Lys   Leu   Asp   Leu   Tyr   His   Trp   Lys   Ser   Phe   Ser   Glu
236       530       535       540         237       Leu Pro Gln Leu Gln Ala Leu Asp Leu Ser Tyr Asn Ser Gln Pro Phe 540         238       545       550       550       555       555       560         239       Ser Met Lys Gly Ile Gly His Asn Phe Ser Phe Val Ala His Leu Ser 570       575       575       575         241       Met Leu His Ser Leu Ser Leu Ser Leu Ala His Asn Asp Ile His Thr Arg Val 580       590       590
237         Leu         Pro         Gln         Leu         Gln         Ala         Leu         Asp         Leu         Ser         Tyr         Asn         Ser         Gln         Pro         Phe           238         545         545         550         550         555         555         555         560         560           239         Ser         Met         Lys         Gly         Ile         Gly         His         Asn         Phe         Ser         Phe         Val         Ala         His         Leu         Ser         575
238       545       550       555       560         239       Ser Met Lys Gly Ile Gly His Asn Phe Ser Phe Val Ala His Leu Ser         240       565       570       575         241       Met Leu His Ser Leu Ser Leu Ala His Asn Asp Ile His Thr Arg Val         242       580       580       585       585       590         243       Ser Ser His Leu Asn Ser Asn Ser Asn Ser Val Arg Phe Leu Asp Phe Ser Gly       605       605         244       595       605       605       605         245       Asn Gly Met Gly Arg Met Gly Arg Met Trp Asp Glu Gly Gly Leu Tyr Leu His Phe         246       610       615       620         247       Phe Gln Gly Leu Ser Gly Leu Leu Leu Lys Leu Asp Leu Ser Gln Asn Asn         248       625       630       630       635       620         249       Leu His Ile Leu Arg Pro Gln Asn Leu Asp Asn Leu Pro Lys Ser Leu
239       Ser Met       Lys       Gly       Ile       Gly       His       Asn       Phe       Ser       Phe       Val       Ala       His       Leu       Ser         240       Met       Leu       His       Ser       Leu       Ser       Leu       Ala       His       Asn       Asp       Ile       His       Thr       Arg       Val         241       Met       Leu       His       Ser       Leu       Ser       Leu       Ala       His       Asp       Ile       His       Thr       Arg       Val         242       Ser       Ser       His       Leu       Asn       Ser       Asn       Ser       Val       Arg       Phe       Leu       Asp       Phe       Ser       Phe       Phe       Ser       Phe       Ser       Ser       Gly         244       Ser       Gly       Met       Trp       Asp       Gly       Gly       Leu       Leu       Gly       Leu       His       Phe       Gly       Leu       His       Phe       Gly       Leu       <
240       Ser Leu Ser Leu Ser Leu Ala His Asn Asp Ile His Thr Arg Val         241       Met Leu His Ser Leu Ser Leu Ser Leu Ala His Asn Asp Ile His Thr Arg Val         242       580       580       585       585       580       590       590         243       Ser Ser His Leu Asn Ser Asn Ser 600       605       605       605       605       605         244       595       Ser Gly Arg Met Trp Asp Glu Gly Gly Leu Tyr Leu His Phe       665       620       620       620         245       Asn Gly Met Gly Leu Ser Gly Leu Leu Leu Lys Leu Asp Leu Ser Gln Asn Asn       640         246       610       Ser Gly Leu Ser Gly Leu Leu Leu Lys Leu Asp Leu Ser Gln Asn       640         247       Phe Gln Gly Leu Leu Arg Pro Gln Asn Leu Asp Asn Leu Pro Lys Ser Leu
241       Met       Leu       His       Ser       Leu       Ser       Leu       Ala       His       Asp       1le       His       Thr       Arg       Val         242       Ser       Ser       His       Leu       Asp       Ser       Asp       Ser       Val       Asp       Phe       Leu       Asp       Phe       Ser       Gly       Gly         244       Ser       Gly       Leu       Asp       Gly       Leu       His       Phe       Gly       Leu       His       His       Phe       Gly       Leu       Asp       Leu       Leu       Leu       Leu       Leu       Leu       Leu       Asp       Leu       Leu       Leu       Leu       Leu       Leu       Leu       L
242       580       585       590         243       Ser Ser His Leu Asn Ser Asn Ser Val Arg Phe Leu Asp Phe Ser Gly         244       595       600       605         245       Asn Gly Met Gly Arg Met Gl5       Trp Asp Glu Gly Gly Leu Tyr Leu His Phe         246       610       610       615       620         247       Phe Gln Gly Leu Ser Gly Leu Leu Leu Lys Leu Asp Leu Ser Gln Asn Asn         248       625       630       630       635       640         249       Leu His Ile Leu Arg Pro Gln Asn Leu Asp Asn Leu Pro Lys Ser Leu
243 Ser Ser His Leu Asn Ser Asn Ser Val Arg Phe Leu Asp Phe Ser Gly 244 595 605 600 600 600 605 605 605 605 605 60
244       595       600       605       605       65       65         245       Asn Gly Met Gly Arg Met Gly Fred Ser Gly Gly Gly Gly Leu Tyr Leu His Phe       610       615       620       620       620       620       620       640
245       Asn Gly Met Gly Arg       Arg Met Trp Asp Glu Gly Gly Leu Tyr Leu His Phe         246       610       615       620         247       Phe Gln Gly Leu Ser Gly Leu Leu Lys Leu Asp Leu Ser Gln Asn       Asn 640         248       625       630       630       635       640         249       Leu His Ile Leu Arg Pro Gln Asn Leu Asp Asn Leu Pro Lys Ser Leu
246       610       615       620         247       Phe Gln Gly Leu Ser Gly Leu Leu Lys Leu Lys Leu Asp Leu Ser Gln Asn Asn 248       625       630       635       640         249       Leu His Ile Leu Arg Pro Gln Asn Leu Asp Asn Leu Pro Lys Ser Leu
247       Phe Gln Gly Leu Ser Gly Leu Leu Lys Leu Asp Leu Ser Gln Asn Asn         248       625       630       635       640         249       Leu His Ile Leu Arg Pro Gln Asn Leu Asp Asn Leu Pro Lys Ser Leu
248       625       630       635       640         249       Leu His Ile Leu Arg Pro Gln Asn Leu Asp Asn Leu Pro Lys Ser Leu
249 Leu His Ile Leu Arg Pro Gln Asn Leu Asp Asn Leu Pro Lys Ser Leu
0.0
251 Lys Leu Leu Ser Leu Arg Asp Asn Tyr Leu Ser Phe Phe Asn Trp Thr
252 660 665 670
253 Ser Leu Ser Phe Leu Pro Asn Leu Glu Val Leu Asp Leu Ala Gly Asn
254 675 680 685
255 Gln Leu Lys Ala Leu Thr Asn Gly Thr Leu Pro Asn Gly Thr Leu Leu
256 690 695 700
257 Gln Lys Leu Asp Val Ser Ser Asn Ser Ile Val Ser Val Val Pro Ala
258 705 710 715 720
259 Phe Phe Ala Leu Ala Val Glu Leu Lys Glu Val Asn Leu Ser His Asn
260 725 730 735

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 08/22/2002 PATENT APPLICATION: US/09/954,987B TIME: 15:57:22

Input Set : A:\seqlist.txt

Output Set: N:\CRF3\08222002\I954987B.raw

## Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:9; N Pos. 380 Seg#:10; Xaa Pos. 39 Seq#:125; Xaa Pos. 2,3,4,5,6,7,8,10,12,14,15,16,17,18,19,20,21,22,25,26,27 Seq#:125; Xaa Pos. 28,29,30 Seq#:126; Xaa Pos. 2,3,4,5,6,7,8,10,12,14,15,16,17,18,19,20,21,22,25,26,27 Seq#:126; Xaa Pos. 28,29,30 Seq#:127; Xaa Pos. 2,3,4,5,6,7,8,10,12,14,15,16,17,18,19,20,21,22,25,26,27 Seq#:127; Xaa Pos. 28,29,30 Seq#:145; Xaa Pos. 2,3,5,6,7,8,9,10,12,13 Seq#:196; Xaa Pos. 4,5,7,8,9,10,11,12,14,15 Seq#:203; Xaa Pos. 2,3,4,5,6,7,8,10,12,14,15,16,17,18,19,20,21,22,25,26,27 Seq#:203; Xaa Pos. 28,29,30 Seq#:204; Xaa Pos. 2,3,4,5,6,7,8,10,12,14,15,16,17,18,19,20,21,22,25,26,27 Seq#:204; Xaa Pos. 28,29,30 Seq#:205; Xaa Pos. 2,3,4,5,6,7,8,10,12,14,15,16,17,18,19,20,21,22,25,26,27 Seq#:205; Xaa Pos. 28,29,30 Seq#:206; Xaa Pos. 2,3,4,5,6,7,8,10,12,14,15,16,17,18,19,20,21,22,25,26,27 Seq#:206; Xaa Pos. 28,29,30